

REMARKS/ARGUMENTS

The Examiner is thanked for the performance of a thorough search. By this response, Claims 1, 5, 9, 19, 21, 22, 23 and 24 have been amended. No claims have been added, canceled or withdrawn. Hence, Claims 1-31 are pending in the application. All issues raised in the Office Action mailed February 10, 2005 are addressed herein. In view of the comments provided hereinafter, reconsideration is respectfully requested.

SUMMARY OF THE REJECTIONS/OBJECTIONS

The issues raised in the Office Action mailed on February 10, 2005 are summarized below. Each of these issues is discussed hereinafter.

1. Claims 1, 5, 9, 19, 21, 22 and 24 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claims 1-31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Schutte et al., U.S. Patent No. 6,178,455 (Hereinafter, Schutte).

REJECTIONS BASED ON INDEFINITENESS

Claims 1, 5, 9, 19, 21, 22 and 24 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically the Office Action states that it is unclear whether the “sending a first request and second message requesting” recited in Claim 1 is coming from the same host or not. The rejection is respectfully traversed. Claim 1 has been amended to recite sending the first request from a first host and receiving the second message from a second host. However, in some alternative embodiments sending a first request and receiving a second message could involve the same host.

Additionally, Claims 5, 9, 19, 21, 22 and 24 were objected to based on the term “determining usage”. The rejection is respectfully traversed. The Claims as now amended clearly recite what the term usage means. Claims 1, 5, 9, 19, 21, 22 and 24 are believed to comply with the requirement of the Office Action with respect to 35 U.S.C. §112, second paragraph. Therefore, reconsideration is respectfully requested.

REJECTIONS BASED ON THE PRIOR ART

Claims 1-31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Schutte. It is respectfully submitted that Claims 1-31 are patentable for at least the reasons provided hereinafter.

CLAIM 1

The Office Action argues at page 3 that Claim 1 is anticipated by Schutte. In order to anticipate under § 102, Schutte must disclose every claim limitation recited in Claim 1. Schutte does disclose a method of providing sets of network address for dynamically configuring hosts on a network. However, Claim 1 recites a particular approach for dynamic host configuration. Schutte does not disclose the particular steps for dynamic host configuration of Claim 1.

The general approach to delegating address space between servers, for one embodiment, is depicted in FIG. 4 of the specification, which is described herein purely for clarification and not to limit the scope of the claims. FIG. 4 describes five steps for delegating and renewing address space: 1) obtain subnets, 2) provide individual addresses, 3) provide subnets, 4) determine usage of subnets, and 5) renew subnets. Claim 1 recites network address delegation, which involves steps 1-3. Remaining steps 4 and 5 involve renewing and reassignment of subnets and network address and are discussed in dependent claims 5 -9, 21-22 and 24. Specifically, Claim 1 recites:

A method of providing sets of network addresses for dynamically configuring hosts on a network, the method comprising the computer-implemented steps of:

assigning one or more subnets of a given size to a pool of available subnets

sending a first request from a first host for a first count of network addresses for a first set of network addresses for dynamically configuring hosts on the network;

determining if there are available network addresses in a pool of available addresses and if there are not any available network address **then**

acquiring a first subnet from the pool of available subnets and adding said first subnet's network addresses to said pool of available addresses;

receiving a first message indicating the first set of network addresses;

receiving a second message from a second host requesting a second count of network addresses for a second set of network addresses for dynamically configuring hosts on the network;
determining the second set of network addresses based at least in part on the first set of network addresses and the second count; and
sending a first response indicating the second set of network addresses.

The steps recited in Claim 1 correspond to the embodiment of FIG. 4:

1. Step 410, the host configuration server obtains one or more subnets.
2. Step 420, the host configuration server provides temporary, individual, network addresses to hosts on the network, and
3. Step 430, the host configuration server provides subnets to other host configuration servers or device, such as routers, that require multiple network addresses on the network.

An important feature of Claim 1 is the manner and use of subnets. As described in FIG. 5 and FIG. 6 for one embodiment the first step in delegating network addresses is to obtain or select a group of subnets. Similarly, Claim 1 recites “assigning one or more subnets of a given size to a pool of available subnets.” Additionally, Claim 1 recites “determining if there are available network addresses in a pool of available addresses and if not then selecting a first subnet from the pool of available subnets and adding said selected first subnet’s network addresses to said pool of available addresses.”

Schutte does not describe the use of subnets and the network addresses of the subnets. The method of Claim 1 determines if there are any addresses from the available pool of addresses, and only if there are not any addresses is an additional subnet and its network addresses added to the list of leased subnets and pool of addresses, respectively. Since Schutte does not recite all the limitations of Claim 1, Claim 1 is not anticipated by Schutte. Reconsideration is respectfully requested.

CLAIMS 21, 22 AND 24

Claims 21, 22 and 24 recite limitations similar to Claim 1 and are patentable for the reasons provided with respect to Claim 1. In addition, each of Claims 21, 22 and 24 introduces one or more additional limitations that independently render it patentable.

Each of Claims 21, 22 and 24 relates to the renewal of network addresses described above with respect to Claim 1. Specifically, each of Claims 21, 22 and 24 additionally recites steps corresponding to the fourth and fifth steps of FIG. 4, involving determining usage of subnets and renewing subnets. Schutte describes the renewal of IP addresses in Col. 17 lines 49-64. However, Schutte does not describe determining usage and renewal with respect to leased subnets. The specific manner and approach for renewing network address is determined in part based on the number of network addresses used in the local table of leased network addresses for subnets used. Schutte has no description of this approach.

Since Claims 21, 22 and 24 recite additional steps and limitations not disclosed in Schutte, Claims 21, 22 and 24 are patentable over Schutte. Reconsideration is respectfully requested.

CLAIM 31

Claim 31 recites a method for providing subnets of network addresses for dynamically configuring hosts on a network. Nothing in Schutte describes the use of subnets. Schutte only describes IP Addresses.

Claim 31 specifically relates to Step 1, obtaining subnets, described above. As previously discussed, Schutte does not disclose the use of subnets and subnet network addresses. Therefore Claim 31 is patentable over Schutte. Reconsideration is respectfully requested.

DEPENDENT CLAIMS

The remaining Claims are dependent upon one of the independent Claims discussed above, and thus include each and every feature of the corresponding independent claims. Each of the remaining dependent claims is therefore allowable for the reasons given above with respect to the independent claims. In addition, each of depending claims introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time. Therefore, it is respectfully submitted that the remaining dependent claims are allowable for the reasons given above with respect to the independent claims.

CONCLUSION

The Applicant believes that all issues raised in the Office Action have been addressed and that allowance of the pending claims is appropriate. Entry of the amendments and further examination on the merits are respectfully requested.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

To the extent necessary to make this reply timely filed, the Applicant petitions for an extension of time under 37 C.F.R. § 1.136.

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP



Christopher J. Palermo

Reg. No. 42,056

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2055 Gateway Place, Suite 550
San Jose, CA 95110-1089
Telephone: (408) 414-1202
Facsimile: (408) 414-1076